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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/394,747	09/13/1999	ROBERT W. HUDELSON	1695	4818

7812 7590 05/12/2003

SMITH-HILL AND BEDELL
12670 N W BARNES ROAD
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PORTLAND, OR 97229

EXAMINER

DESIR, JEAN WICEL

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 05/12/2003

91

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/394,747

Applicant(s)

HUDELSON ET AL.

Examiner

Jean W. Désir

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 and 6 is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 September 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figures 1, 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by David K. Fibush "Integrated Digital Audio into the Serial Digital Video Signal", SMPTE Journal, September 1994, pages 574-579.

Claim 1:

Fibush discloses:

“multiplexing the audio data groups to provide a serial multi-group audio data stream, and inserting the serial multi-group audio data stream into the ancillary data space of the serial digital video data stream”, see Page 575 columns 2, 3, Figures 4, 5, page 576 column 3.

Claim 2 is disclosed, see Figures 4, 5.

Claim 3:

Fibush discloses:

“an embedder for formatting data of a first audio data group, generating data packets from the formatted data and inserting the data packets into the digital video data stream”, see Figures 4, 5, Page 575 columns 2, 3, page 576 column 3;

“and an expansion device for formatting data of a second audio data group and supplying formatted data to the embedder, and wherein the embedder generates data packets from the formatted data of the second audio data group and inserts the data packets into the digital video data stream”, see Figures 6, 7, page 578 col. 2 first paragraph, page 579 Conclusion.

4. Claim 7 is rejected under 35 U.S.C. 102(e) as being anticipated by Fielder (6,188,987).

Claim 7:

Fielder discloses:

“a disembedder for reading data packets of at least two groups from the digital video data stream, formatting packet-wise data of a first audio data group as sample-

wise data and outputting the sample-wise data of the first audio data group", see Fig. 8 item 84;

"and expansion device for receiving packet-wise data of a second audio data group from the disembedder, formatting packet-wise data of the second audio data group as sample-wise data and outputting the sample-wise data of the second audio data group", see Fig. 8 item 86.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Greenwood et al (5,842,171).

Claim 5:

Greenwood discloses:

"writing the first and second audio data streams into respective FIFOs, reading the audio data streams from the respective FIFOs, combining the data streams from the respective FIFOs", see Fig. 6, col. 1 lines 34-43, col. 4 lines 22-56, col. 5 lines 35-37;

"periodically testing depth of data in each FIFO, and forcing the depth of data in each FIFO to a selected value" is not explicitly disclosed, verbatim, by Greenwood.

However, Greenwood would have rendered the claimed invention obvious; because of

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limited capacity of FIFOs, an artisan would have readily recognized that the depth of data in each FIFO would have to be limited by a certain value in order to avoid overflow and/or underflow condition. Therefore, the claimed invention would have been obvious to a person of ordinary skill in the art at the time the invention was made.

Allowable Subject Matter

7. Claims 4, 6 are allowed. Because the prior art does not teach or would not have rendered obvious:

A method of embedding ancillary data in an ancillary data space of a serial digital interface video stream, wherein each line of the video stream is composed of a horizontal ancillary data space followed by an active interval, such as claimed in claim 4, the method comprising: during the horizontal ancillary space of line n of the video stream, reading all data from a video FIFO, whereby at the start of the active interval of line $n+1$ of the video stream the video FIFO contains no data; during the active interval of line n , preparing an ancillary data packet and loading the data packet into the video FIFO; during the horizontal ancillary data space of line $n+1$ of the video stream, reading all data from the video FIFO and inserting the ancillary data packet into the horizontal ancillary data space of line $n+1$, whereby at the start of the active interval of line $n+2$ of the video stream the video FIFO contains no data. The closest prior art, David K. Fibush "Integrated Digital Audio into the Serial Digital Video Signal", SMPTE Journal, September 1994, pages 574-579, and Fielder (US 6,188,987) disclose embedded

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ancillary data in an ancillary data space of a serial digital interface video stream, either singularly or in combination, fail to anticipate or render obvious the present invention.

A method of embedding ancillary data in the horizontal ancillary data space of a serial digital video stream, wherein each line of the video stream is composed of a horizontal ancillary data space followed by an active interval, such as claimed in claim 6, the method comprising: detecting whether ancillary data is embedded in the horizontal ancillary data space of the input serial digital video stream; if no ancillary data is embedded in the input serial digital video stream, embedding ancillary data in the serial digital video stream; if ancillary data is embedded in the input serial digital video stream, operating either in a cascade mode or in an originate mode; and wherein operating in the originate mode includes the step of embedding ancillary data in the horizontal ancillary data space of the serial digital video stream by overwriting data in the input serial digital video stream, and operating in the cascade mode includes the step of embedding ancillary data in the serial digital video stream without overwriting data in the input serial digital video stream. The closest prior art, David K. Fibush "Integrated Digital Audio into the Serial Digital Video Signal", SMPTE Journal, September 1994, pages 574-579, and Fielder (US 6,188,987) disclose embedded ancillary data in an ancillary data space of a serial digital interface video stream, either singularly or in combination, fail to anticipate or render obvious the present invention.

Conclusion

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jean W. Désir** whose telephone number is **(703) 308-9571**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W. Miller**, can be reached at **(703) 305-4795**.

9. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is **(703) 306-0377**.

MICHAEL H. LEE
PRIMARY EXAMINER

JWD

Apr. 28, 03